

PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Currently Amended): [In a wireless communication system having a base station controller and a plurality of base stations,] a method comprising:
 - segmenting a message into a plurality of segments;
 - determining a fragment size and a number of fragments for each of the segments;
 - dividing the segments into a plurality of fragments[;] using the fragment size and the number of fragments; and
 - transmitting the fragments_ [;]
 - [receiving a retransmission request for a first segment of the plurality of segments;
 - if segmentation is active for retransmission requests, retransmitting the first segment; and
 - if segmentation is inactive for retransmission requests, retransmitting the plurality of segments in response to the request.]
2. Cancelled
3. (Currently Amended): The method [as in] of claim 1, further comprising:
 - applying a segment parameter to each segment.
4. (Currently Amended): The method [as in] of claim 1, further comprising:
 - applying a segment indicator to each fragment.
5. (Currently Amended): [In] a wireless [communication] receiving system [having a base station controller and a plurality of base stations, a mobile station] comprising:
 - means for building segments of a message from a plurality of transmitted frames;
 - means for identifying a missing segment of the message;
 - means for requesting a retransmission of the missing segment; and

means for extracting a segmentation indicator, wherein the segmentation indicator indicates if segmentation is active for retransmission requests.

6. (Currently Amended): The [mobile station as in] receiving system of claim 5, further comprising:

means for segmenting a message to form a plurality of segments;

means for determining a fragment size and a number of fragments for each of the segments;

means for fragmenting the segments to form a plurality of fragments [;] using the fragment size and the number of fragments;

means for transmitting the plurality of fragments; and

means for retransmitting one of the plurality of fragments.

7. (Currently Amended): A method for receiving transmissions in a wireless communication system, comprising:

receiving a transmission frame having a plurality of segments, each segment having a plurality of fragments, wherein the fragment size and number of fragments is determined for each of the segments;

determining if any of the plurality of segments is missing;

if no segment is missing, reconstructing the message;

determining if segmentation is active for retransmission; and

if a segment is missing and segmentation is active, requesting retransmission of the missing segment.

8. (Currently Amended): The method [as in] of claim 7, further comprising:
processing fragments of the transmission frame.

9. (Currently Amended): The method [as in] of claim 7, further comprising:
determining an end of a segment; and
reconstructing the segment.

10. (Currently Amended): The method [as in] of claim 7, further comprising:
if a segment is missing, sending a negative acknowledge message to the transmitter of the
transmission frame.
11. (Currently Amended): The method [as in] of claim 7, further comprising:
if no segment is missing, sending an acknowledge message to the transmitter of the
transmission frame.
12. (Currently Amended): The method [as in] of claim 7, further comprising:
determining a start of a segment; and
storing information in a buffer from the start of the segment.
13. (Currently Amended): The method [as in] of claim 12, further comprising:
if the buffer is not empty at the start of a segment, flushing the buffer.
14. (Currently Amended): The method [as in] of claim 13, further comprising:
if a fragment is not a start of segment and the buffer is empty, marking the fragment as
missing.
15. (Currently Amended): A wireless apparatus, comprising:
receiver for receiving a plurality of transmission frames having a plurality of segments,
each segment having a plurality of fragments, wherein the fragment size and
number of fragments is determined for each of the segments;
segment extraction unit coupled to the receiver, adapted to identify and reconstruct
segments within a transmission frame according to segment indicators associated
with segments, wherein at least one of the segment indicators indicates when
segmentation is active for retransmission requests; and

message reconstruction unit coupled to the segment extraction unit, adapted to determine any missing segment within a message and to request retransmission of the missing segment.

16. (Currently Amended): A computer data signal embodied on a carrier wave, characterized by:

a plurality of segments, each segment comprising:

a segment parameter;

a segment indicator indicating if segmentation is active for retransmission requests; and

a plurality of fragments, wherein the fragments are used to calculate a segment error rate.

17. - 18. Cancelled

19. (Currently Amended): The computer data signal [as in] of claim 16, wherein the segment error rate is given as:

$$SER=1-(1-FER)^x$$

wherein FER is a frame error rate of the computer data signal, and x is the number of fragments in the plurality of fragments.

20. (Currently Amended): The computer data signal [as in] of claim 19, wherein [the] a message error rate is given as:

$$MER=1-(1-SER)^k$$

wherein k is the number of segments in the plurality of segments.

21. (Currently Amended): The method [as in] of claim 4, wherein the segment indicator indicates if segmentation is active for retransmission requests.

22. (Currently Amended): An apparatus adapted for operation in a wireless communication system, comprising:
means for segmenting a message into a plurality of segments;
means for determining a fragment size and a number of fragments for each of the segments;
means for dividing the segments into a plurality of fragments[;] using the fragment size and the number of fragments;
means for transmitting the fragments;
means for receiving a retransmission request for a first segment of the plurality of segments;
means for retransmitting the first segment if segmentation is active for retransmission requests; and
means for retransmitting the plurality of segments in response to the request if segmentation is inactive for retransmission requests.

23. (Currently Amended): The [mobile station as in] receiving system of claim 5, wherein segment retransmission requests for a segment or a portion of a message are supported for active segmentation, and
wherein all segments of the message are retransmitted for inactive segmentation.

24. (New): A method comprising:
receiving a retransmission request for a first segment of the plurality of segments;
if segmentation is active for retransmission requests, retransmitting the first segment; and
if segmentation is inactive for retransmission requests, retransmitting the plurality of segments in response to the request.

25. (New): The computer data signal of claim 16, wherein a receiving system is used for receiving the carrier wave.

26. (New): The method of claim 1 further comprising:

- determining a first fragment size and a first number of fragments for a first segment;
dividing the first segment into the first number of fragments having the first fragment size;
determining a second fragment size and a second number of fragments for a second segment;
dividing the second segment into the second number of fragments having the second fragment size, wherein the first and second numbers of fragments are different.
27. (New): The method of claim 1, wherein each fragment comprises a frame.
28. (New): The method of claim 1, wherein each fragment is a Service Data Unit.
29. (New): The method of claim 1, wherein each fragment has a sequential fragment identifier.
30. (New): The method of claim 1, wherein each fragment includes a segment identifier.
31. (New): The method of claim 30, wherein each segment identifier has at least two bits.